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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,608	11/30/2001	Michael Neal	DEM1P008	1143
36088	7590	08/18/2009		
KANG LIM 3494 CAMINO TASSAJARA ROAD #436 DANVILLE, CA 94506			EXAMINER AUGUSTIN, EVENS J	
			ART UNIT 3621	PAPER NUMBER
			MAIL DATE 08/18/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/006,608	Applicant(s) NEAL ET AL.	
	Examiner Evens J. Augustin	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-14 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-14 and 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/30/09</u> . | 6) <input type="checkbox"/> Other: _____ |

Status of Claims

1. This is in response to an amendment filed on 05/13/2009. Claims 1, 3-7, 9-14 and 16-28 are pending and have been examined.

Response to Arguments

2. The United States Patent and Trademark Office has fully considered the applicant's arguments filed on August 16th, 2006, but has not found those arguments to be persuasive.
3. With regard to the 101 rejection applicant needs to tie processes to a particular apparatus. For example, in claim 14, the “storing initial prices...” is being done either by a client or server. Applicant needs to specify which hardware is performing the process (i.e., storing, by server, initial prices...). Applicant is encouraged to contact the Examiner at the number for possible claim suggestions that may move the case forward.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 14-16-21, 23-25 and 27 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.
6. Based on Supreme Court precedent¹ and recent Federal Circuit decisions, § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing.² If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101.
7. In this particular case, independent process claims 14 and 21 are not tied to any particular apparatus. Therefore, they are not patent eligible processes/methods under 35 U.S.C. § 101.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² The Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).

9. Claims 1, 3-7, 9-13, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouimet et al., U.S. Patent No. 6,094,641.
10. As per claims 1, 3-7, 9-13, 26 and 28, Ouimet et al. teach an apparatus comprising a computer readable media that can be used for calculating a preferred set of prices for a plurality products or a subset of said plurality (figure 2).
11. Claims 14 and 16-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouimet et al., (U.S. Patent No. 6,094,641) ("Ouimet") in view of Hartman et al., (U.S. Patent No. 5,987,425) ("Hartman") and Delurgio et al., (U.S. Patent No. 6,553,352) ("Delurgio").
12. As per claims 14 and 16-27, Ouimet teaches a computer implemented method for computing a preferred set of prices comprising:
 - a. the storing of initial prices of a plurality of products (column 3, lines 1-13),
 - b. creating a demand model for generating said prices (figures 3-4B; column 3, lines 1-13),
 - c. displaying optimized prices and setting store prices according to the displayed optimized price (column 1, lines 65-67; column 2, lines 12-17).
 - d. Ouimet did not explicitly teach an invention in which the demand model is based on bayesian method. However, Ouimet teaches that an advantage of their system is that any demand model can be used (column 1, lines 59-62) hence, it would have been to one of ordinary skill to use a model derived from Bayesian statistics. Bayesian model is well known in the art (see U.S. 6725208). Advantages of the Bayesian model is that it provides high quality solutions in a parameter insensitive way that avoids overfitting. Furthermore, by having a clean statistical

interpretation, the approach easily lends itself to estimating confidence levels and related quantities (see U.S. 6725208, column 3, lines 54-56).

- e. Claim 22 is being interpreted as a product by process claim. According to the MPEP section 2113, PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE. In this case, the product is the database. Ouimet teaches that the user will be provided with a database of predefined demand models from which to choose (column 4, lines 37-39)
- f. Ouimet does not explicitly recite dividing products into subsets. Hartman et al. teach deriving optimal prices for a plurality of products by dividing subsets according to department and price sensitivity (abstract; figure 5; column/line 2/57-3/49; column/line 4/35-5/25). Regarding, the selection of a subset of products, Hartman et al. teach product subsets being determined by “experienced retailers” who have a “good feel for the price sensitivity of items” in a product line (‘425, column 5, lines 48-64). It has been held that in order for a new combination of old elements to be patentable, the elements must cooperate in such manner as to produce a new, unobvious, and unexpected result (*In re Venner*, 120 USPQ 192 (CCPA 1958); *In re Smith*, 73 USPQ 394). It has also been held that it is not ‘invention’ to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result (*In re Venner*, 120 USPQ 192 (CCPA 1958); *In re Rundell*, 9 USPQ 220).
- g. Therefore, it would have been obvious to one of ordinary skill to automate the subset selection process of Hartman et al. using a well known computer algorithm

such as integer programming (IP) (Note it is inherent to the solution of an IP problem to “relax” the integer constraint in order to convert the IP problem to a more solvable LP or linear programming problem).

- h. However, neither Ouimet et al. nor Hartman et al. explicitly recite sending sales data to a server. Delurgio et al. teach sending product sales data to a server in order to receive optimized prices for said products or a subset of said products (abstract; figures 2, 11 and 12; column 7, lines 14-60). Ouimet et al. does not specifically recite demand models based on Bayesian statistics. On the other hand, Ouimet et al. teach that an advantage of their system is that any demand model can be used (column 1, lines 59-62). Delurgio et al. also teach demand models derived using Bayesian statistics (column 8, lines 10-25).
- i. Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Ouimet et al., Hartman et al. and Delurgio et al. in order to provide a grocery chain (e.g. Giant, Safeway) a method for managing prices at multiple stores (‘352, column 7, lines 14-43) and better optimize prices by grouping products according to price sensitivity (‘425, column/line 2/55-3/26).

Conclusion

13. THIS ACTION IS MADE FINAL. Any new ground(s) of rejection is due to the applicant’s amendment. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Evens Augustin whose telephone number is (571) 272-6860. The Examiner can normally be reached on Monday-Friday from 9: 00 AM-6:00 PM.
16. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Fischer, can be reached at (571) 272-6779.
17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

/EVENS J. AUGUSTIN/

Primary Examiner, Art Unit 3621

August 18, 2009

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